UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,663	08/22/2001	Bruno Bozionek	112740-266	7913

29177 7590 05/19/2005		EXAMINER
BELL, BOYD & LLOYD, LLC		YIGDALL, MICHAEL J
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ART UNIT	PAPER NUMBER
2192	

CHICAGO, IL 60690-1135

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td><td></td></tr>
<tr><td>09/934,663</td><td>BOZIONEK ET AL.</td><td></td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>Michael J. Yigdall</td><td>2192</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 January 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10,13-15,17 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10,13-15,17 and 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>07 January 2005</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Applicant's amendment and response filed on January 7, 2005 has been fully considered.

Claims 1-10, 13-15, 17 and 18 remain pending.

Response to Arguments

2.   Applicant's arguments have been fully considered but they are not persuasive.

3.   In response to Applicant's argument that Burgess teaches away from using an interpreter

language (Applicant's remarks, page 7, last paragraph), the examiner recognizes that

obviousness can only be established by combining or modifying the teachings of the prior art to

produce the claimed invention where there is some teaching, suggestion, or motivation to do so

found either in the references themselves or in the knowledge generally available to one of

ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In

re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Burgess discloses a process for automatically producing software for a computer using a

plurality of components (see, for example, column 2, lines 15-40). Burgess further discloses

producing program code linking one component to another component (see, for example, column

4, lines 35-48). Burgess does not expressly disclose the limitation wherein the program code is

produced in an interpreter language.

Similarly, Forbes discloses a process for automatically managing software for a computer

using a plurality of components (see, for example, column 2, lines 38-52). Forbes further

discloses producing a manifest file linking the components based on dependencies, wherein the

manifest file is produced in an interpreter language such as XML (see, for example, column 12,

lines 29-38 and column 13, lines 49-60). The code produced in the XML language provides

platform independence for components written in different languages and for different operating

systems (see, for example, column 13, lines 49-60).

As presented in the claim rejections below, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to supplement the process of Burgess to

produce the program code in an interpreter language, such as taught by Forbes, so as to

automatically produce software for a plurality of operating systems using a plurality of

components written in different languages.

One of ordinary skill in the art would have been motivated to provide the advantage of

such platform independence. Thus, it would have been obvious to one of ordinary skill in the art

for Burgess to produce the program code in an interpreter language, such as taught by Forbes.

Applicant has not provided an explanation as to how and/or why Burgess teaches away from this

modification. Although Applicant states, "the presently claimed invention uses interpreter

language to analyze and execute the produced program code not until the runtime of the

program" (Applicant's remarks, page 7, last paragraph to page 8, first paragraph), limitations

from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993).

Drawings

4.   The changes to Figure 2, shown in the annotated drawing sheet filed on January 7, 2005,

are accepted by the examiner. However, a formal replacement drawing sheet, labeled

"Replacement Sheet" pursuant to 37 CFR 1.121(d), is required in reply to the Office action. The

objection to the drawings will not be held in abeyance.

Claim Objections

5.   Claims 17 and 18 are objected to because of the following informalities: As recited,

these claims are dependent upon claim 16, which has been canceled. Appropriate correction is

required. Claims 17 and 18 are presumed to be dependent upon claim 1.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claims 1-10, 13-15, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Pat. No. 5,805,896 to Burgess (art of record, "Burgess") in view of U.S. Pat. No.

6,381,742 to Forbes et al. (art of record, "Forbes") in view of U.S. Pat. No. 6,681,001 to Clayton

et al. (art of record, "Clayton").

With respect to claim 1 (currently amended), Burgess discloses a process for

automatically producing software for a computer using a plurality of components which exist in

executable code (see, for example, column 2, lines 15-40), comprising the steps of:

(a) providing an input interface for each of the components in which respective methods

of each of the components are defined which can be called and implemented as part of the

respective component (see, for example, column 2, line 67 to column 3, line 2, which shows that

each component has input ports, i.e. an input interface, and column 4, lines 1-16, which shows

that associated functions or methods are defined and implemented as part of each component and

can be called);

(b) providing an output interface for each of the components in which respective data

formats are defined for data of a respective event as a result of implementation of one of a

respective method and a respective component, and in which respective further methods are

defined which can be called in the respective component but are not executably contained in the

respective component (see, for example, column 2, line 67 to column 3, line 2, which shows that

each component has output ports, i.e. an output interface, for sending particular types or formats

of events, and column 4, lines 1-16, which shows that the sending of events results from

implementing a corresponding function or method, and which further shows that functions or

methods contained in other components are defined and can be called);

(c) depicting, in a graphical editor, a symbol corresponding to one of the components

having a respective input interface and a respective output interface (see, for example, column 3,

lines 7-15, which shows a visual or graphical editor for depicting components, and FIG. 4, which

shows symbols corresponding to the components with input and output interfaces);

(d) offering a selection option for directional linking of an output interface of one of the

components to an input interface of another of the components (see, for example, column 3, lines

28-31, which shows selecting components and connecting or linking the components together,

and lines 55-58, which shows directional links between the output and input interfaces); and

(e) producing a program code linking the one component to the another component based

on links made (see, for example, column 4, lines 35-48, which shows producing a class, i.e.

program code, for linking the components based on the connections or links made).

Burgess does not expressly disclose the limitation wherein the program code is produced in an interpreter language.

However, Forbes discloses a process for automatically managing software for a computer using a plurality of components (see, for example, column 2, lines 38-52). Forbes further discloses producing a manifest file linking the components based on dependencies, wherein the manifest file is produced in an interpreter language such as XML (see, for example, column 12, lines 29-38 and column 13, lines 49-60). The code produced in the XML language provides platform independence for components written in different languages and for different operating systems (see, for example, column 13, lines 49-60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the process of Burgess to produce the program code in an interpreter language, such as taught by Forbes, so as to automatically produce software for a plurality of operating systems using a plurality of components written in different languages.

Burgess does not expressly disclose the limitation wherein the software is controlled software for a telecommunications installation.

However, Clayton discloses a computer-integrated telecommunications system (see, for example, the abstract), including control software that serves as an interface for sending event data between telecommunications hardware and a network (see, for example, column 12, line 58 to column 13, line 3). The system improves integration, performance and reliability (see, for example, column 2, lines 46-59).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the process of Burgess to produce controlled software, such as taught

by Clayton, so as to improve the performance and reliability of computer-integrated

telecommunications systems.

With respect to claim 2 (original), the rejection of claim 1 is incorporated, and Burgess

further discloses at least one of the following steps:

(a) calling a respective method, via the program code and based on a respective event,

which is defined in the input interface of the another component, and transferring, via the

program code, the data of the respective event to the respective method which is called, the data

being expected by the method which is to be called (see, for example, column 4, lines 1-16,

which shows calling a function or method and transferring the data to another component, and

column 3, lines 58-67, which shows that the event data is expected by the component); and

(b) converting, via the program code, the respective data formats of the callable methods

in the output interface of the one component into the respective data formats of the available

methods of the input interface of the another component, and converting the methods into one

another (see, for example, column 4, line 58 to column 5, line 7, which shows formatting or

converting the data formats of the parameters for the functions or methods associated with the

input and output interfaces of the components).

With respect to claim 3 (original), the rejection of claim 1 is incorporated, and Burgess

further discloses at least one of the following steps:

(a) comparing the definition of the method to be called in the output interface of the one

component with the definition of available methods of the input interface of the another

component (see, for example, column 4, lines 16-34, which shows comparing the prototypes or

definitions of the functions or methods associated with the input and output interfaces of the

components); and

(b) comparing the respective data formats of an event of the output interface of the one

component with the respective data formats to be transferred to a method of the input interface of

the another component (see, for example, column 6, line 57 to column 7, line 6, which shows

comparing the data formats of the events for the functions or methods associated with the input

and output interfaces of the components).

With respect to claim 4 (original), the rejection of claim 3 is incorporated, and Burgess

further discloses at least one of the following steps:

(a) matching the data formats of the callable methods in the output interface of the one

component to the data formats of the available methods of the input interface of the another

component (see, for example, column 4, lines 16-34, which shows matching the prototypes or

formats of the functions or methods associated with the input and output interfaces of the

components); and

(b) matching the data formats of the event of the output interface of the component to the

data formats to be transferred to the method of the input interface of the another component if

they are not compatible (see, for example, column 6, line 57 to column 7, line 6, which shows

matching the data formats of the events for the functions or methods associated with the input

and output interfaces of the components).

With respect to claim 5 (original), the rejection of claim 1 is incorporated, and Burgess

further discloses the limitation wherein a link from one of an event and a method of the output

interface of the one component to a plurality of methods of the input interface of the another component can be chosen (see, for example, column 2, lines 64-66, which shows that each component has a plurality of input and output ports, i.e. methods of the input and output interfaces, and column 3, lines 28-31, which shows choosing components and connecting or linking the components together).

With respect to claim 6 (original), the rejection of claim 5 is incorporated, and Burgess further discloses the step of:

(a) determining a condition for selecting the methods of the input interface of the another component for the link (see, for example, column 3, lines 58-67, which shows determining a condition based on the event type for selecting input ports, i.e. methods of the input interface, to connect or link to another component).

With respect to claim 7 (original), the rejection of claim 1 is incorporated, and Burgess further discloses the limitation wherein an input interface and an output interface belong to the same component (see, for example, column 2, line 67 to column 3, line 2, which shows that the same component has both input ports and output ports, i.e. an input interface and an output interface).

With respect to claim 8 (original), the rejection of claim 1 is incorporated, and Burgess further discloses the limitation wherein a plurality of links can be made for a method of an input interface (see, for example, column 5, line 63 to column 6, line 6, which shows adding a plurality of connections or links for a function or method of an input interface).

With respect to claim 9 (original), the rejection of claim 1 is incorporated, and Burgess

further discloses the limitation wherein a component can be represented a plurality of times as a

symbol (see, for example, FIG. 4, which shows a component represented a plurality of times as a

symbol).

With respect to claim 10 (original), the rejection of claim 1 is incorporated, and Burgess

further discloses the limitation wherein the symbols for components can be arranged freely on a

display area of the graphical editor (see, for example, column 10, lines 37-49, which shows

placing and arranging components in the editor).

With respect to claim 13 (currently amended), the rejection of claim 1 is incorporated,

and Forbes further discloses the limitation wherein the interpreter language is XML (see, for

example, column 12, lines 29-38 and column 13, lines 49-60, which shows that the interpreter

language is XML).

With respect to claim 14 (currently amended), the rejection of claim 1 is incorporated,

and Forbes further discloses the steps of:

(a) combining the program code with the components as a dynamic link library (see, for

example, column 11, lines 43-65, which shows combining program code with components of a

DLL or dynamic link library); and

(b) combining the program code with an interpreter to form an executable complete

program (see, for example, column 11, lines 43-65, which shows combining program code with

components written in the Java language, which are inherently run by an interpreter).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to supplement the process of Burgess to combine the program code with the components as a dynamic link library and to combine the program code with an interpreter, such as taught by Forbes, so as to provide the software with the components and programs needed for execution (see, for example, Forbes, column 10, line 66 to column 11, line 10).

With respect to claim 15 (original), the rejection of claim 1 is incorporated, and Burgess further discloses the step of:

(a) connecting at least two of the components to form a new complete component, it being possible to stipulate which methods and events of the output interfaces of the at least two components used form the output interface of the complete component, and which methods of the input interfaces of the at least two components used form the input interface of the complete component (see, for example, FIG. 4, which shows connecting a plurality of components to form a new component, and column 10, line 66 to column 11, line 9, which shows handling the input and output interfaces of a plurality of components nested in a hierarchy).

With respect to claim 17 (original), the rejection of claim 1 is incorporated, and Clayton further discloses the limitation wherein the telecommunications installation is a telephone exchange (see, for example, column 1, lines 10-14, which shows telephone exchange systems).

With respect to claim 18 (original), the rejection of claim 1 is incorporated, and Clayton further discloses the limitation wherein the control software is on a control computer in the telecommunications installation (see, for example, column 11, lines 26-35, which shows that the software runs on a server, i.e. a control computer, in the telecommunications system).

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael J. Yigdall whose telephone number is (571) 272-3707.

The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the

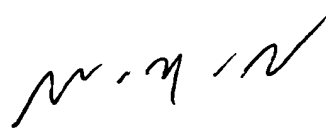organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MY   Michael J. Yigdall
                        Examiner
                        Art Unit 2192

mjy

WEI Y. ZHEN
PRIMARY EXAMINER